Nevada
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DOE/NV--1275-ADD

National Nuclear Security Administration

Addendum to the Streamlined Approach for Environmental Restoration Plan for Corrective Action Unit 134: Aboveground Storage Tanks, Nevada Test Site, Nevada

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September 2008

Environmental Restoration
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U.S. Department of Energy
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Nevada Site Office

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ADDENDUM TO THE STREAMLINED APPROACH FOR ENVIRONMENTAL RESTORATION PLAN FOR CORRECTIVE ACTION UNIT 134: ABOVEGROUND STORAGE TANKS, NEVADA TEST SITE, NEVADA

U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office
Las Vegas, Nevada

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ADDENDUM TO THE STREAMLINED APPROACH FOR ENVIRONMENTAL RESTORATION PLAN FOR CORRECTIVE ACTION UNIT 134: ABOVEGROUND STORAGE TANKS, NEVADA TEST SITE, NEVADA

Approved By: /s/ Kevin Cabble Date: 9/22/08

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PREFACE

The following is an addendum to the *Streamlined Approach for Environmental Restoration Plan for Corrective Action Unit 134: Aboveground Storage Tanks, Nevada Test Site, Nevada,* DOE/NV--1275, dated May 2008. This addendum expands upon information provided in the May 2008 plan. It provides specific details regarding samples to be collected at Corrective Action Sites 15-01-05 and 29-01-01. It also provides discussion and rationale for establishing the spatial boundaries of Corrective Action Sites.

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DATA QUALITY OBJECTIVES

SPATIAL BOUNDARIES

The following paragraphs provide spatial boundaries and rationale for establishing these boundaries for each Corrective Action Site (CAS):

- CAS 03-01-03 consists of the aboveground storage tank (AST) and its contents. The CAS boundary is considered to be the AST perimeter plus 5 feet. There was no release of contamination from this tank. The CAS consists only of the tank and its contents. The CAS boundary is established to provide access and working room for any removal activities.
- CAS 15-01-05 consists of the AST and soil that has been impacted by a release from the tank at its current location and, if found, at its original location. The CAS boundary is considered to be the AST perimeter plus 10 feet uphill and laterally, and 30 feet downhill. The tank is located on an extremely sloping hillside. Because any release will migrate down, the uphill and lateral CAS boundaries are provided to provide access and working room for sampling and tank removal activities. The 30-foot downhill boundary has been established because the tank likely arrived at its current location empty; however, any release would have migrated in this direction.

  Similar boundaries are also provided for the tank's original location, if it is found. Any location where the tank could have been located previously would have been located on a similarly sloped hillside. The only areas that are not similarly sloped are small pads and access roads, possibly 10 feet across, cut into the hillside. If the tank had been located on one of these small areas, the migration pattern would be similar; therefore, the CAS boundary would be similar. One potential original tank location was identified at a small flat area with fuel-type piping to that location. There is no visual indication that a release occurred at this location; however, the area will be investigated.
- CAS 29-01-01 consists of soil that has been impacted by a release from the associated diesel tank and does not include the tank, which is active. The CAS boundary is considered to be the AST perimeter plus 5 feet on its south end, 20 feet laterally, and 30 feet on its north end, where the release was reported to have occurred. Details and references documenting the source of the release from the spigot at the north end of the tank are provided in the plan. This CAS boundary provides an approximately equidistant area from the source to the south, east, and west sides of the tank. As is indicated in Figure A, the slope of the site is to the north. Any catastrophic release from the tank would have migrated to a low point approximately 15 feet northeast of the tank. There is no evidence or history of catastrophic release from this tank.

SAMPLING DETAILS

Samples will be collected from CASs 15-01-05 and 29-01-01. Information regarding the samples to be collected, including details and rationale regarding the number of samples required, sample locations, and sample depths, is provided below.

CAS 15-01-05

Initially, one soil sample will be collected from directly below the AST, at a location most likely to be impacted by a release from the tank (i.e., in absence of staining, at the tank opening at the lowest point of the tank). If analytical results show concentrations to be less than the final action levels, then no additional samples will be collected and no further investigation will be needed. If results show that action levels have been exceeded, then step-out samples will be collected to determine the extent of contamination.

At what appears to be the original tank location, one soil sample will be collected from that location most likely impacted by a release from the tank based on field screening results for petroleum hydrocarbons. If analytical results show concentrations to be less than the final action levels, then no additional samples will be collected and no further investigation will be needed. If results show that action levels have been exceeded, then step-out samples will be collected to determine the extent of contamination.

If step-out samples are required, then a minimum of four will be collected at each location where needed. A minimum of three surface samples (0–6 inches) and one subsurface sample will be collected. For the surface samples, one sample will be collected from downslope of the initial sample, and the other two will be collected on either side laterally away from the initial sample location. Field screening for petroleum hydrocarbons may be used to guide the decision regarding how far from the initial sample location the step-out samples should be collected. Because the original tank location is somewhat flat, an additional sample will be collected on the upslope side of the initial sample. Additional step-out samples will be collected as needed to bound the surface contamination.

The subsurface sample will be collected downslope of the original sample and just above the bedrock interface. The depth to bedrock at this site is not expected to be deep (less than 3 feet) because the entire area is the side of a mountain. If it is possible and safe, this sample will be collected from within the CAS boundary. However, because of the slope of the site, excavation will most likely be required to be manual and it may create the potential for landslides, thereby creating an unsafe environment. If a downslope sample cannot be safely obtained from within the CAS boundary, then a sample will be collected from further downslope at a safe location. As with the surface samples, an additional step-out sample will be collected if needed to bound contamination found within the CAS boundary. If a sample collected from outside of the CAS boundary is greater than the action level, then the Nevada Division of Environmental Protection will be contacted and a plan for additional activity will be agreed upon before proceeding.

CAS 29-01-01

Initially, one soil sample will be collected from directly below the spigot at the north end of the AST. If analytical results show concentrations to be less than the final action levels, then no additional samples will be collected and no further investigation will be needed.

If results show that action levels have been exceeded, then step-out samples will be collected to determine the extent of contamination. Four surface samples are proposed to be collected in the approximate locations identified in Figure A to bound the lateral extent of contamination. Due to the shallow bedrock at this location, sufficient soil may not be available for sampling and sample locations may need to be reevaluated. However, at least three surface samples will be collected. Samples will be collected from a depth of 0–6 inches below ground surface. Field screening for petroleum hydrocarbons may be used to guide the decision regarding how far from the initial

sample location the step-out samples should be collected to bound the area of contamination greater than the action levels. One of the samples will be in the direction toward the topographically low area.

If more than 6 inches of soil are present above bedrock, then a subsurface sample will be collected from just above bedrock. This sample will be collected along the line that transects the tank spigot (i.e., the initial sample location) and the topographically low area. Field screening for petroleum hydrocarbons may be used to guide the decision regarding how far from the initial sample location the step-out samples should be collected to bound the area of contamination greater than the action levels. Additional step-out samples will be collected as needed to bound the subsurface contamination. There is very little soil in this area and subsurface samples will not likely be needed.

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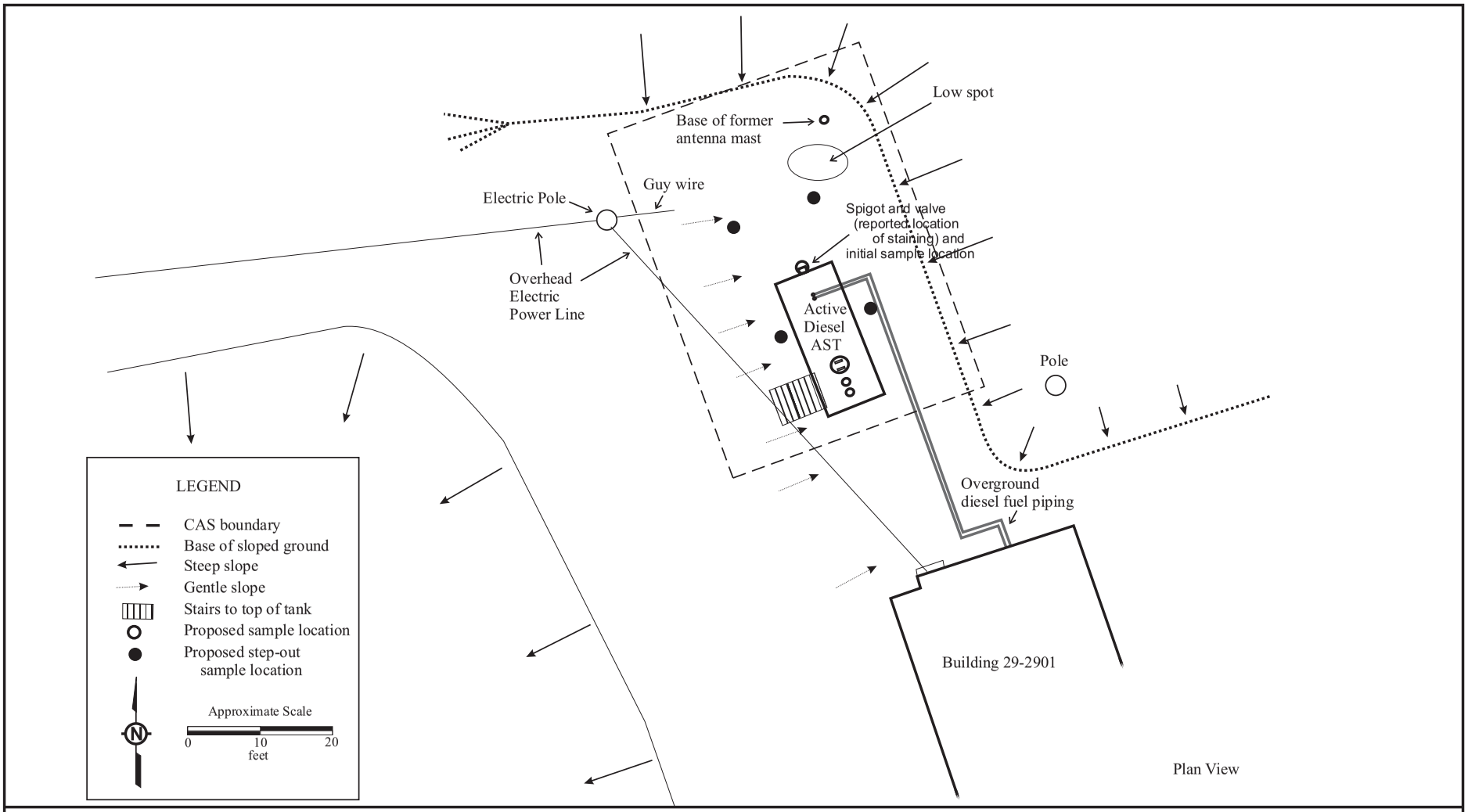

FIGURE A. CORRECTIVE ACTION SITE 29-01-01, ABOVEGROUND STORAGE TANK SITE DRAWING AND PROPOSED SAMPLE LOCATIONS

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